Panasonic

Operating Instruction

Colour Television
TX-68PS72Z

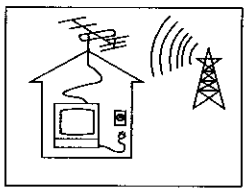
Please read the operating instructions completely before operating this set.

TQB4G2237

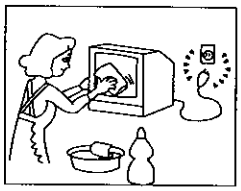
Dear Panasonic customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new colour television.

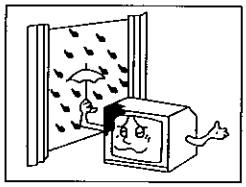
Safety Instructions



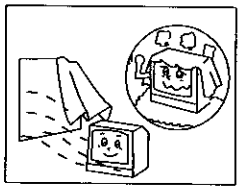
The TV set can be operated on AC SINGLE 230V–240V, 50Hz.



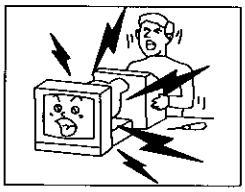
The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol, petroleum or a chemical cloth. For safety, remove the plug from the wall outlet.



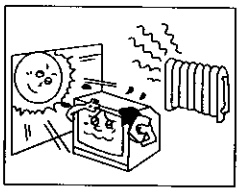
To prevent damage which may result in fire or electrical shock, do not expose the TV set to rain or excessive moisture.



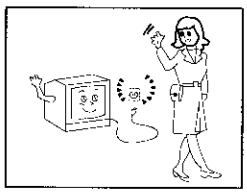
Adequate ventilation is essential to prevent failure of electrical components.



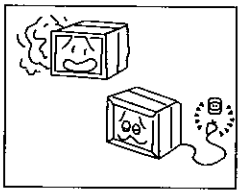
Do not remove the rear cover, as live parts are accessible when it is removed.



Avoid exposing the TV set to direct sunlight and other source of heat.



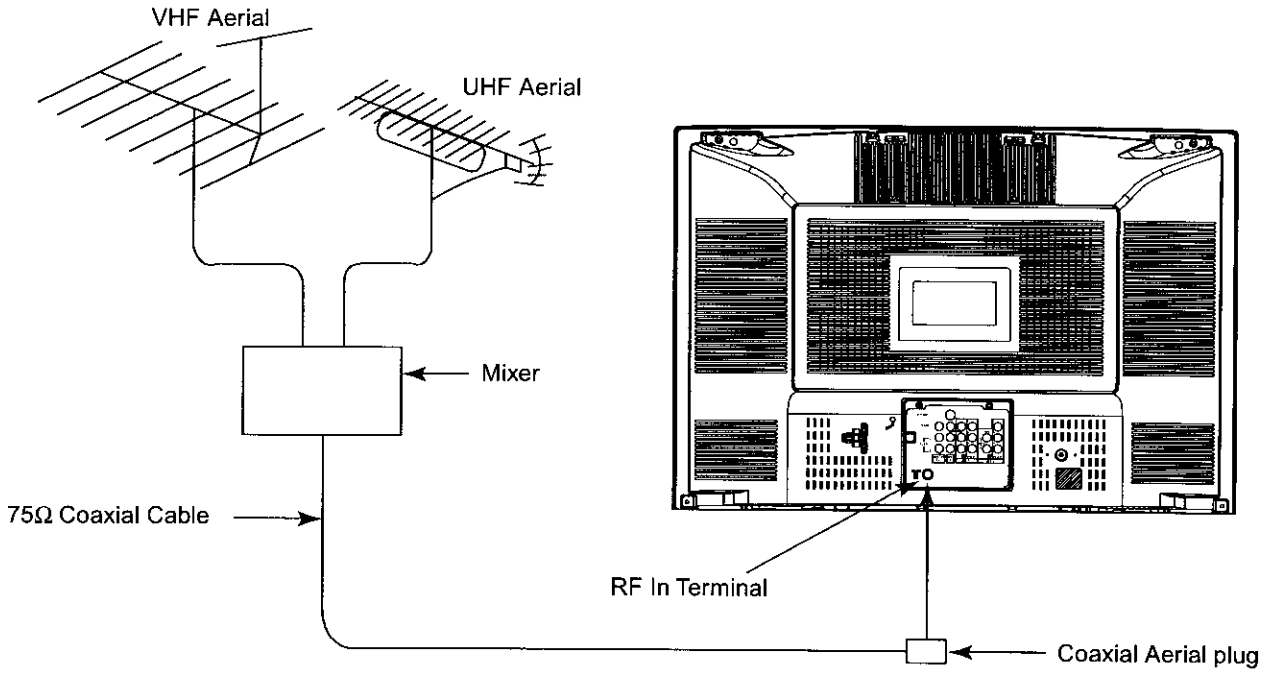
Remove the plug from the wall outlet (Power point) when the TV set is not used for a prolonged period of time.



Do not use this set if abnormal operation occurs. EX: smoke, odd sounds or smells, turn the power switch off and disconnect the AC power if you notice any unusual operation.

Before Operating This Set

Connecting the Aerial Cable to the RF In Terminal



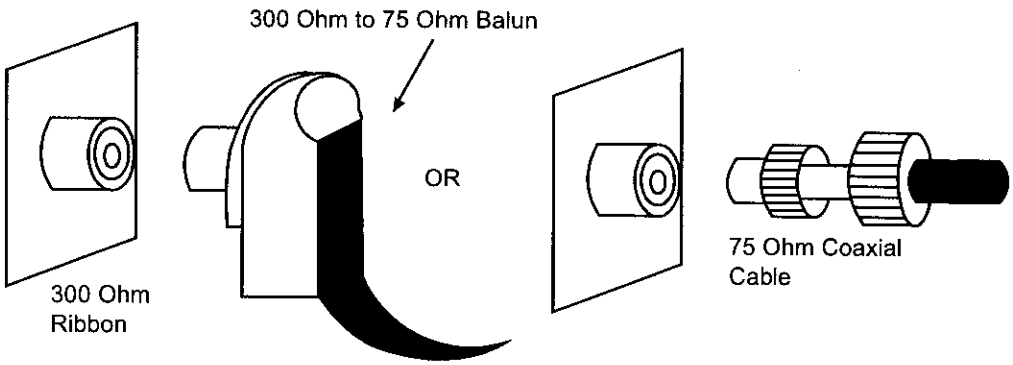
To obtain the best quality picture and sound, an external antenna, the correct cables (75 Ohm coaxial) and the correct terminating plug will be required.

If a communal antenna system is used, you may require the correct connection cable and plugs between the wall antenna socket and your television receiver.

Your local Television Service Dealer may be able to assist you in obtaining the correct antenna system for your particular area and accessories required.

Any matters about antenna installation, upgrading of existing systems or accessories required, and the cost incurred, are the responsibility of the customer.

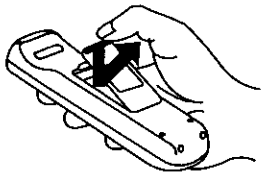
Note :
If your existing antenna system uses 300 Ohm to 75 Ohm Balun, see Below.



Before Operating This Set

Battery Installation

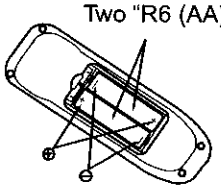
1.



Open the cover.
Press bottom downward and pull out the cover.

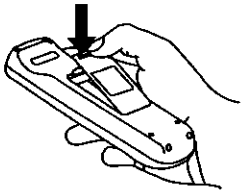
2.

Two "R6 (AA)" size



Batteries: Use two "R6 (AA)" size batteries.
Insert the batteries ensuring correct polarity.
This is identifiable by the "+" and "–" symbols on both the batteries and inside the battery compartment.

3.



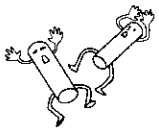
Replace the cover.

Do not use rechargeable (Ni-Cd) batteries.
They are different in shape and performance and may fail to ensure correct operation.

⚠ Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

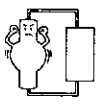
Old Batteries



New Batteries

Replacement both batteries at the same time.

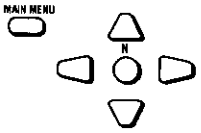
Don't mix battery types
(alkaline with carbon, zinc. etc.)



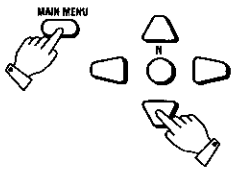
Don't Recharge.

Geomagnetism Correction

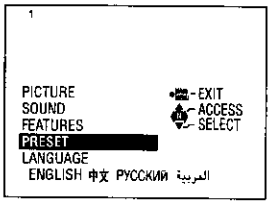
Operation from Remote Control

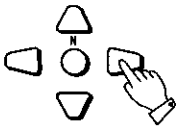


1. Press the Main Menu button.

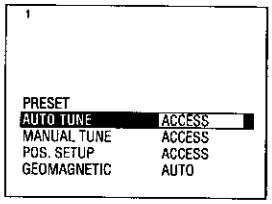
2. 

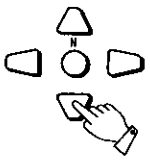
Select the "PRESET" menu by pressing the Position Up "∧" or Down "∨" button.



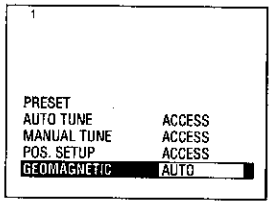
3. 

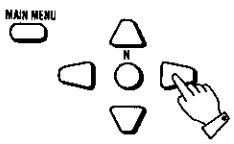
Access the "PRESET" menu by pressing the Position Left "<" or Right ">" button.



4. 

Press Position Up "∧" or Down "∨" button to select Geomagnetic.

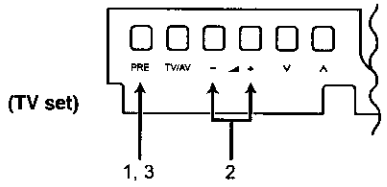


5. 

Press the Position Left "<" or Right ">" button to adjust the Geomagnetic level, so that the colour patches in the four corners of the screen do not appear.

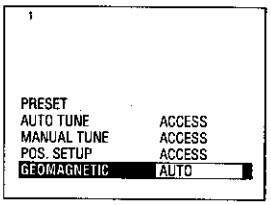
Before Operating This Set

Operation from the TV



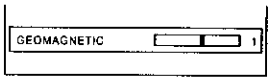
1.

Press the "PRE." (PRESET) button 4 times.



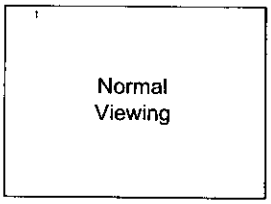
2.

Press the Volume Up "+" or Down "–" button to adjust the Geomagnetic level, so that the colour patches in the four corners of the screen do not appear.



3.

Press the "PRE." (PRESET) button once.

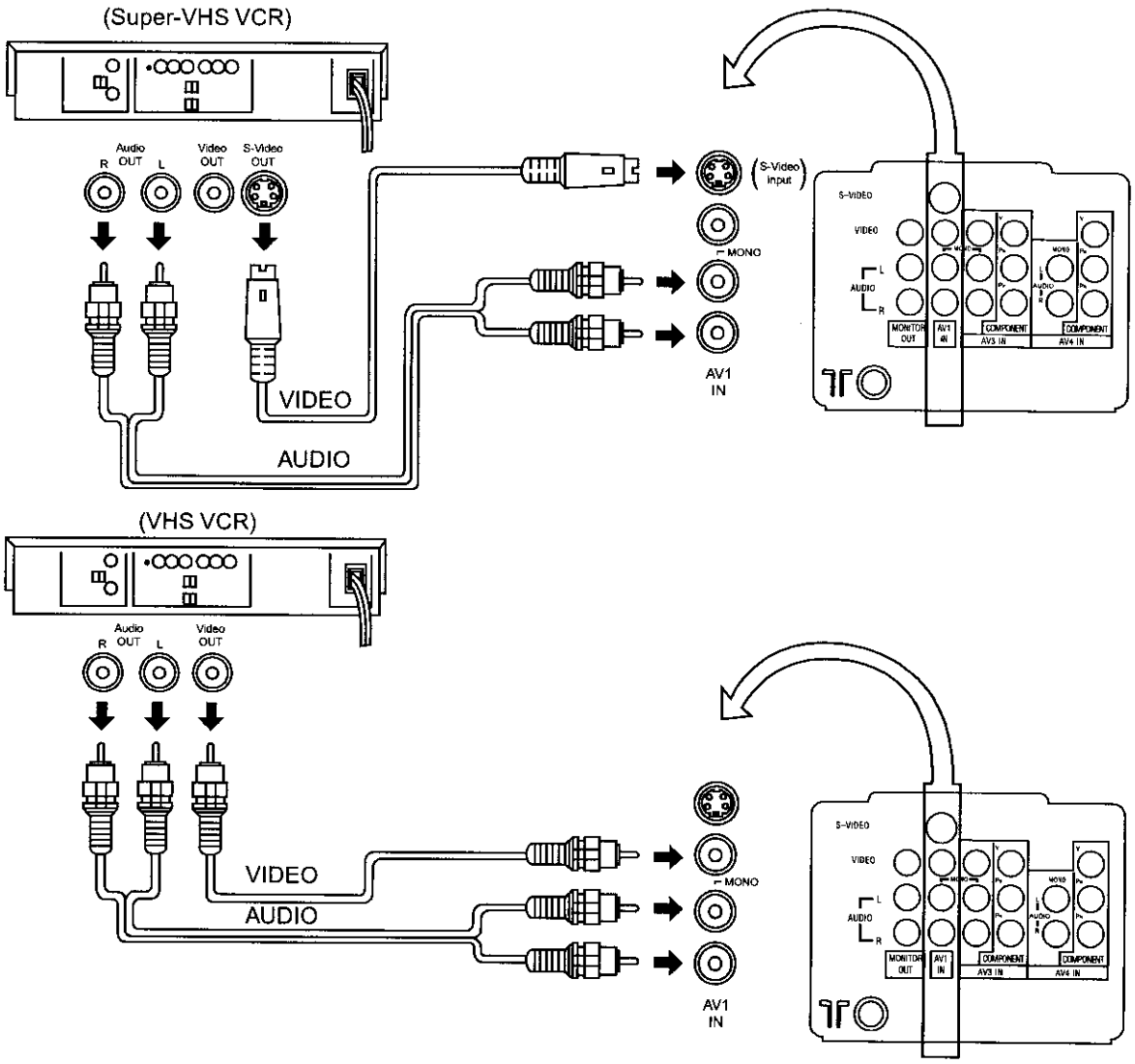


Helpful Hint

(1) If geomagnetic changes still cause colour patches on the screen even after the TV is installed, turn the power off and turn on again after about 30 minutes.
(2) Adjustment for geomagnetism should be performed every time the location of the TV is changed.
(3) In some cases, colour patches will not be completely eliminated even after adjustment, particularly in ferro-concrete buildings and other structures susceptible to geomagnetism. In these cases adjust by changing the installation location.

Connections

How to connect the "AV1, AV2 or AV3" Input Terminals



Note:

(1) When AV1, AV2, AV3 or AV4 is selected, and that AV mode has on input picture signal, the background Colour of the TV screen will change. (This only occur if the Blue-Back function is set to the ON condition.)

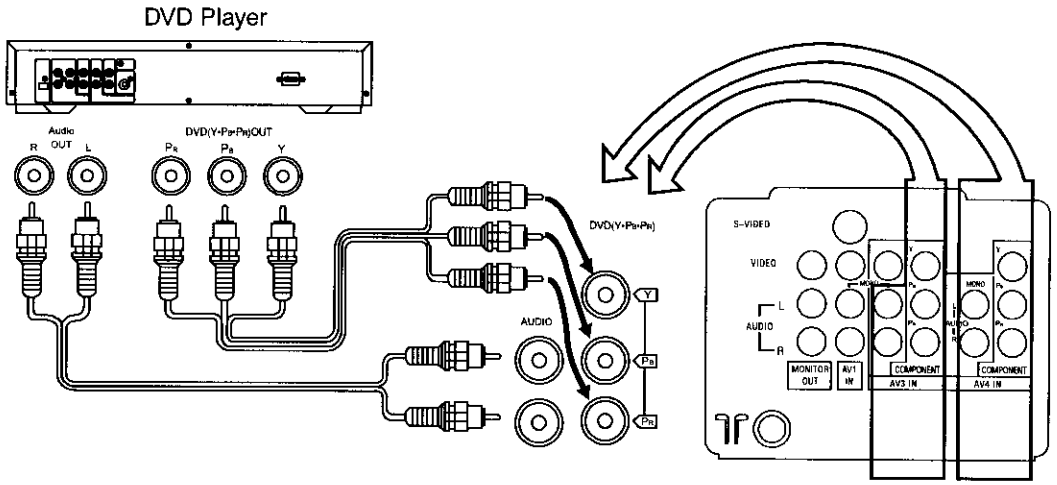
(2) When an S-Video cable is connected to the S-Video terminal, the Video input will be automatically switched off for the AV mode.

(3) When a Monaural VCR is used, connect the Monaural Audio cable to the Audio "L" (Left) terminal.

(4) Similar connections are available at the AV1, AV2 and AV3 input terminals. Select the desired AV input position by pressing the "TV/AV" button.

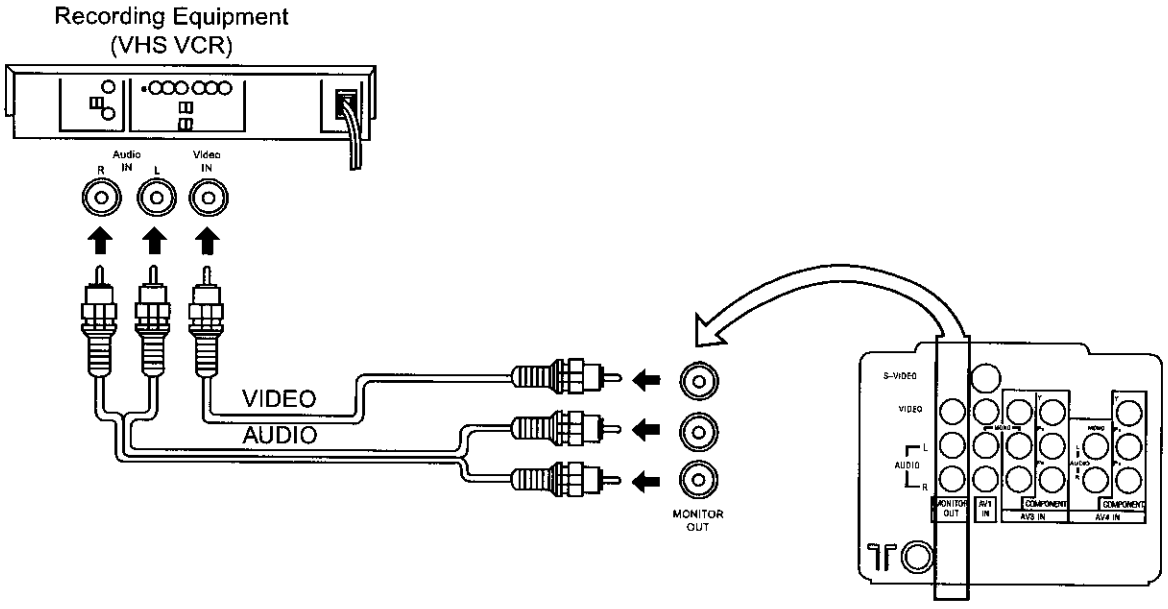
(5) The AV3 audio input terminals serves as the audio input terminal for both the video input and for the DVD input.

How to connect the AV4 (DVD) Input Terminals



How to connect the AV Monitor Output Terminals to other Equipment

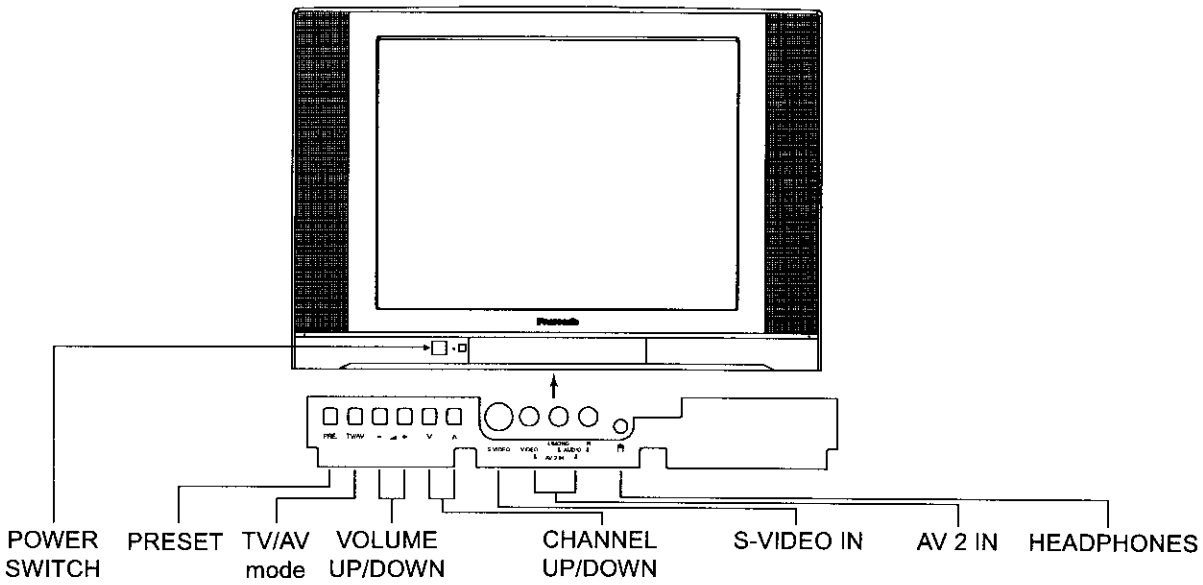
The "Monitor Out" terminal output the same signals as main picture on the TV screen and sound from the speaker at that time. e.g. TV programmes or signals from AV1, AV2 or AV3 input.

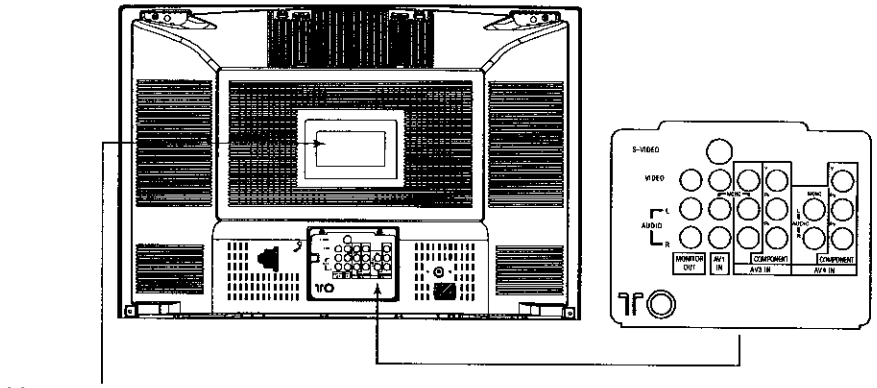


Note:

(1) Never connect the same video recorder with both the VIDEO IN and MONITOR OUT terminals on this TV set, as this could cause incorrect operation.
(2) The monitor output emits the main picture normal video and audio signals.
(3) Teletext display on screen will not be output at the MONITOR OUT terminals.
(4) The DVD signal (Y•P_B•P_R) is not output at the MONITOR OUT terminals.
(5) The DVD signal input terminal takes priority over the AV3 video input terminal.

Location of Control (TV)

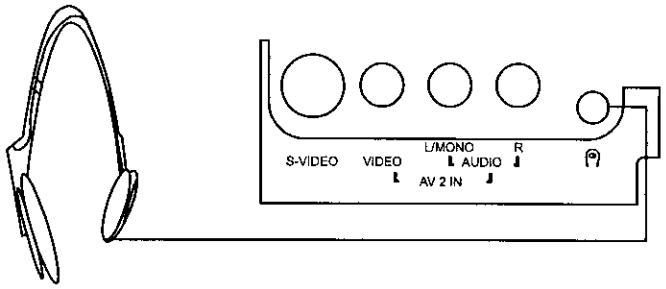




Model Name Plate

Connecting Headphones

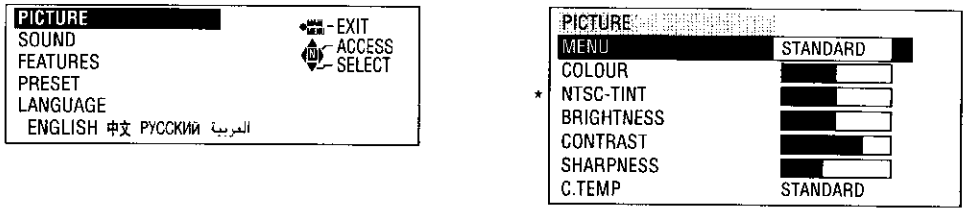
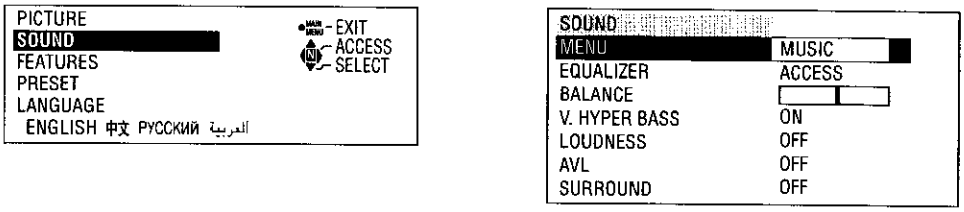
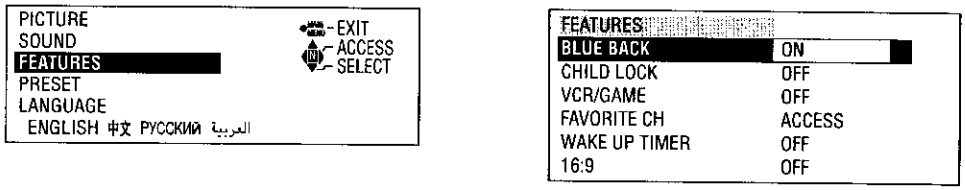
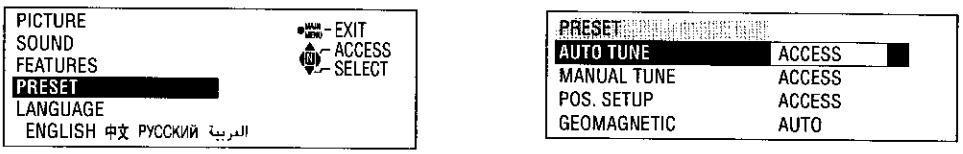
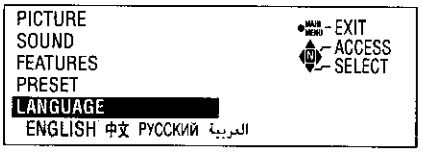
When a headphones plug is inserted into the Headphones socket all speakers will be automatically disconnected; only the Headphones will function



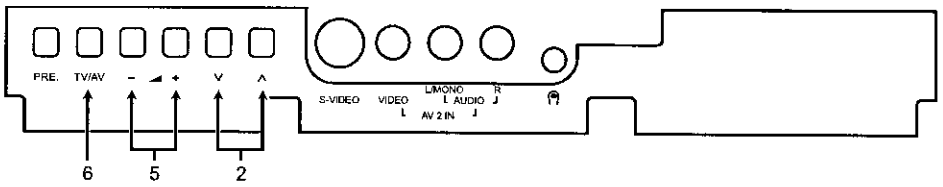
(Optional)
(not supplied)

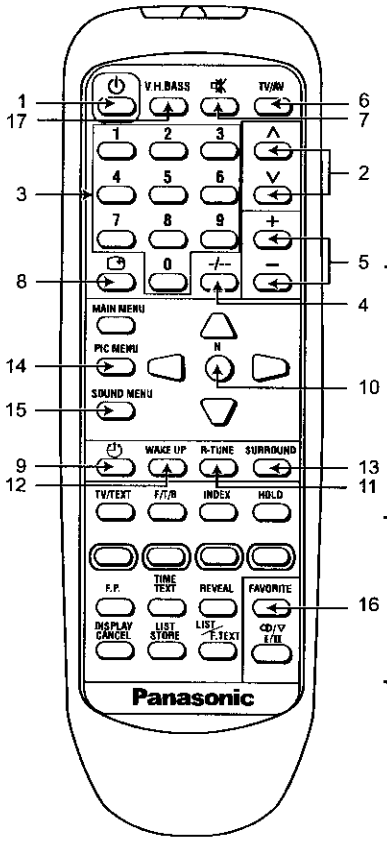
Flow Chart of Main Menu (Remote Control)

When the "MAIN MENU" (EXIT) button is pressed at the Main Menu screen, the screen display will return to the normal viewing condition.
When the "MAIN MENU" (EXIT) button is pressed at each MENU screen (Picture, Sound, Features, Preset), the screen display will return to the Main Menu screen

Menu	On Screen Indication
Picture	 * Appear only when NTSC signal is received.
Sound	
Features	
Preset	
Language	

General Operation





1.

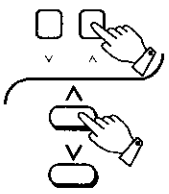
To Switch Power on/off

The TV set must be switched on at the wall outlet and at the Main power switch.
Press this button to turn the TV set ON, from stand-by mode. Press it again to turn off.

Note:

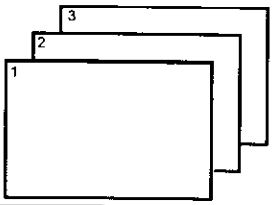
It is also possible to turn the TV set ON, from STANDBY mode by pressing the "Direct Programme Number Selection" button (0-9) and the "Programme Number Up or Down" button, either on the set or on the Remote Control.

2.

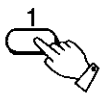


Programme Number Selection

Press the Programme Number Up "∧" or Down "∨" button to select the next higher or lower Programme Number.

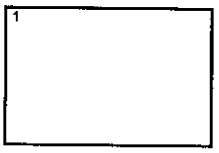


3.



Direct Programme Number Selection (0 - 9)

e.g. To select Programme Number "1", press the "1" button.



4.

Two Digit Programme Number Selection

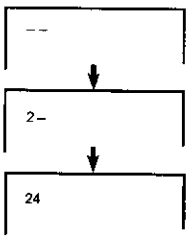
e.g. To select Programme Number "24".

Press the -/-- button.

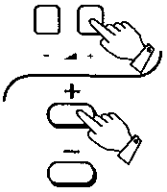
Press the 2 button.

Press the 4 button.

Setting range	0 ~ 99

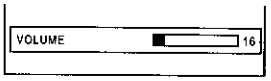


5.



Volume Adjustment

Press the Volume Up or Down button to increase or decrease the sound volume level.

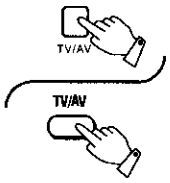


Note:

The on screen display will indicate both numerically and graphically the volume level. Numeric levels start at "0" for zero or no sound, and will increase up to 100 which is the maximum sound level.

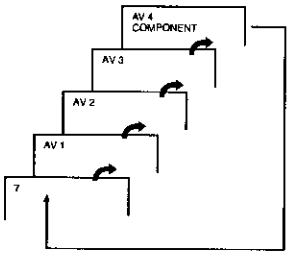
General Operation

6.

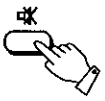


TV / AV Selection

Press the "TV/AV" button to select TV, AV1, AV2, AV3 and AV4 input signal modes sequentially.

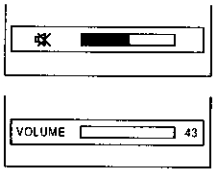


7.



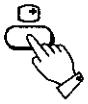
Sound Mute Button

Press this button to mute the Sound completely.
Press the button once again to restore the previous sound level, and cancel the mute.



The "Mute" symbol will appear.
(Colour changes to Red)

8.



Recall Button

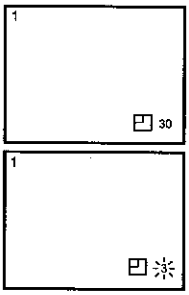
Press the RECALL button to display the current system status. Press this button until display is cancelled.

9.

Off -Timer Button

The TV set may be preset to switch to stand-by after a fixed period.
By pressing "Off-Timer" button, you can select the preset time either 30, 60, or 90 minutes.

30 → 60 → 90
↑ 0 ← AUTO ←



When the off-timer reaches its last 3 minutes, it starts blinking before going to stand-by condition.

Note :
Setting Off-timer to AUTO mode. If the set is not switched off, when the TV station ends broadcasting, it will automatically go to the stand-by condition after 5 minutes. This AUTO mode will not operate when the TV receiver is in AV mode.

How to cancel the Off-Timer setting:
1. Set the preset time condition to "0" mode by pressing the Off-Timer button.
2. Turning the TV set off.

10.

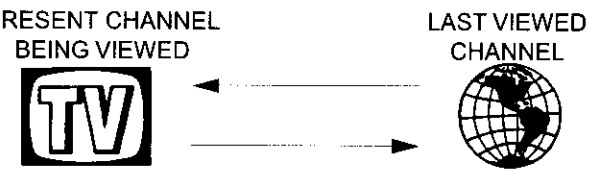
Normal (N) Button

By pressing the Normal "N" button on the Remote Control while Picture, Sound or Features Control Function is displayed, the selected function will be changed to the Normal Mode. Normalization will not occur if the function is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".

11.

Rapid Tune Button

Press the button to access previously viewed channel.



12. WAKE UP

Wake Up Timer Button

1. Press the "WAKE UP TIMER" button.
2. Press the position Left or Right button to select the Wake Up Timer. (Wake Up Timer will increase or decrease by 10 minutes when Left or Right button is pressed.)
   Note :
   Wake Up Timer can be set up to 12 hours.

3. After setting the Wake Up Timer, switch the TV set to stand-by mode. (LED light will blink ON and OFF during stand-by mode.)
4. When the Wake Up Timer has elapsed, the set will automatically switch on (Press any button to cancel the Wake Up Timer on screen display).
   Note :
   i) After the Wake Up Timer is set and the TV mode is still not switched off, the Wake Up Timer will continue to count down until the timer is off.
   ii) When Wake Up Timer switch ON the TV set, the off-timer is set to 90 minutes mode automatically. Press any button to cancel the off-timer. If no button is pressed, the TV set will switch off automatically after 90 minutes.

5. To cancel the Wake Up Timer.
   You can choose any of the following:
   i) Switch off the main power.
   ii) Press the position Left or Right button, until OFF is reached.
   iii) Press the NORMALIZE button when Wake Up Timer OSD is displayed.

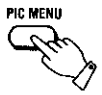
13. SURROUND

Surround Sound Operation

On-screen display during surround mode.

Type of broadcast	ON-Screen display
TV/AV MODE	OFF → SPATIAL → OFF

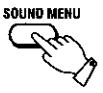
SPATIAL
Spatial Surround modes allow various types of surround effects to be produced by mimicking both the direct sound, as heard by the audience, and the sound reflected back from the surrounding.

14. 

Picture Menu Operation

By pressing the PICTURE MENU button, you can sequentially select the Picture menus as shown below:

On-screen	Function
DYNAMIC	For watching in brighter environments. This menu selects a higher than normal level of contrast.
STANDARD	For watching in normal (evening) environments. This menu selects normal level of contrast.
CINEMA	To realize the presence in a cinema environment when watching movies.

15. 

Sound Menu Operation

By pressing the SOUND MENU button, you can sequentially select the Sound menus as shown below:

On-screen	Function
MUSIC	Recreates the acoustics feel on a live concert. Adds excitement to music videos, soundtracks and provide powerful sound presence.
NEWS	Enable spoken voices to be heard more clearly. Perfect for news, documentaries and talk shows.
CINEMA	Recreates the cinematic sound effect from your TV. This setting provides clear and crisp dialogue.
SPORTS	The sound roars around from both sides of the TV, making you feel as you are watching the live game.
PERSONAL	Allows the setting of equalizer and balance to suit any personal taste with instant recall at any time.

16.

How to use FAVORITE CH mode

Refer to page 37.

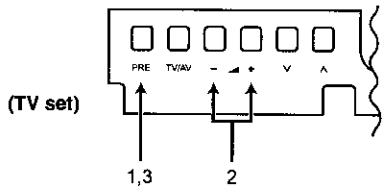
17.

V.HYPER BASS Button

Refer to page 34.

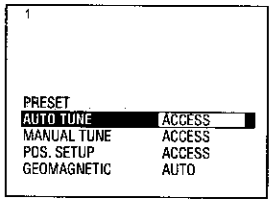
Tuning Procedure

Automatic Tune

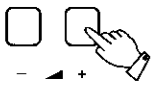


1.

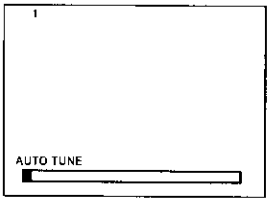
Press the "PRE." (PRESET) button once.



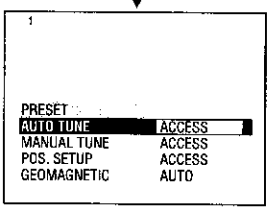
Channel Number
Automatic Tune condition.

2. 

Press the Volume Up "+" button.



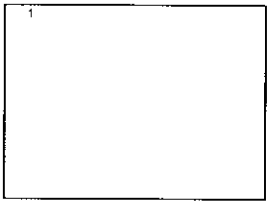
Search start.



The best tuning position is automatically memorized.

3.

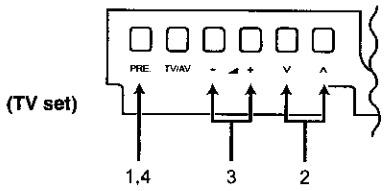
Press the "PRE." (PRESET) button 4 times.



This returns the set to the normal viewing condition.

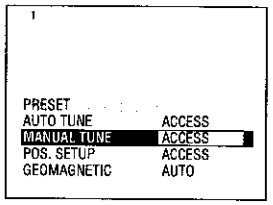
Tuning Procedure

Manual Tune



1.

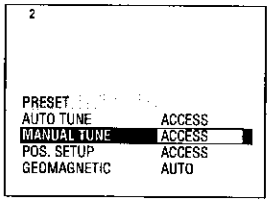
Press the "PRE." (PRESET) button twice, setting the Manual Tune mode.



Channel Number Manual Tune condition.

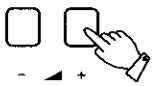
2.

Press either the Channel Up or Down button.

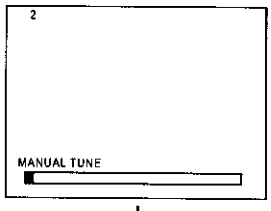


Select the desired Channel Number.

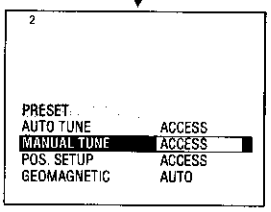
3.



Press the Volume Up "+" or Down "–" button.
Volume "+" : Next higher Channel
Volume "–" : Next lower Channel



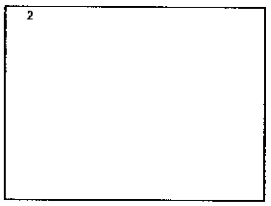
Search start.



The best tuning position is automatically memorized.

4.

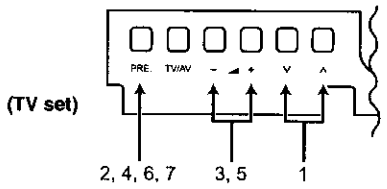
Press the "PRE." (PRESET) button 3 times.



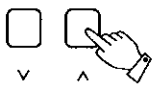
This returns the set to the normal viewing condition.

Tuning Procedure

Fine Tuning



Under normal reception conditions, this function is not required or necessary. However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

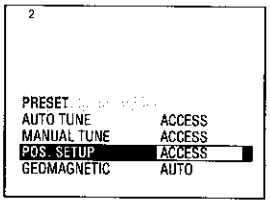
1. 

Select the channel which you want to improve using the Programme Number Up "∧" or Down "∨" button.

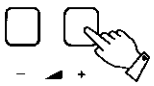
Select the desired Programme Number.

2.

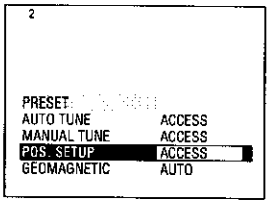
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".

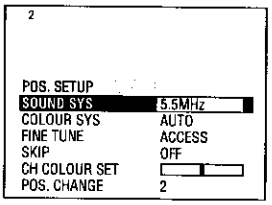


"POS. SETUP" condition.

3. 

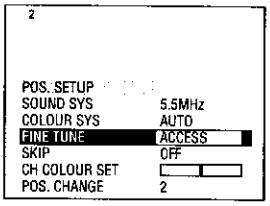
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



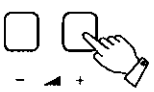


4.

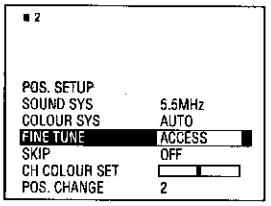
Press the "PRE." (PRESET) button twice, setting to "FINE TUNE".



"FINE TUNE" condition.

5. 

Press and hold the Volume Up "+" or Down "–" button until the clear picture is received.



Fine Tuning starts.

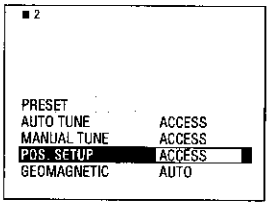
The AFC function is deactivated.

The "■" symbol appears on the left of the Programme Number.

Tuning Procedure

6.

Press the "PRE." (PRESET) button 4 times, setting it back to "POS. SETUP".

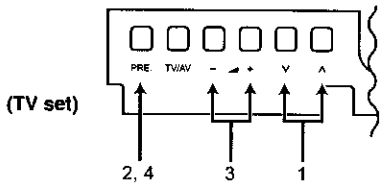


7.

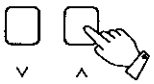
Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

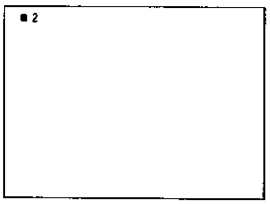
How to Cancel the Fine Tuning



Cancelling previously adjusted (manually) Fine Tuning, means reactivating the AFC (Automatic Frequency Control) function, also known as AFT (Automatic Fine Tuning). Reactivating the Automatic Fine Tuning means allowing the set automatically tune to the optimum tuning position, for that Programme Number.

1. 

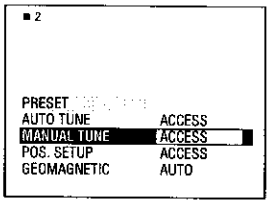
Select the "AFC OFF" Programme Number which you want to return to Automatic Frequency Control (cancel the manual Fine Tuning).



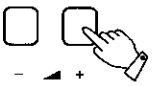
"AFC OFF" Programme Numbers are indicated to you by the "■" symbol to the left of the Programme Number in the on-screen display.

2.

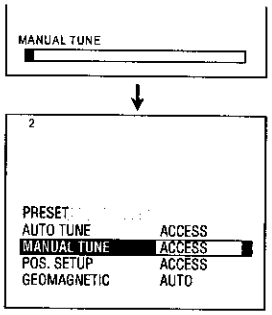
Press the "PRE." (PRESET) button twice, setting the Preset Menu to "MANUAL TUNE".



Manual Search condition.

3. 

Press the Volume Up "+" or Down "–" button, briefly.



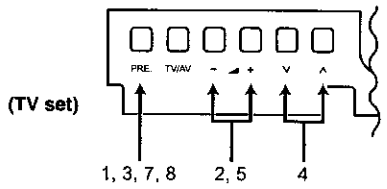
The best tuning position is automatically memorised. (In other words, manually tune away from the transmission, and then back to it.)

4.

Press the "PRE." (PRESET) button 3 times.

This returns the set to the normal viewing condition.

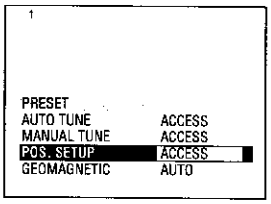
Programme Number Skip



It is possible to skip Programme Number on which no TV stations are tuned appearing on the screen. The function is only effective when selecting Programme Numbers by pressing the Programme Number Up "∧" or Down "∨" button either on the TV set or the Remote Control.

1.

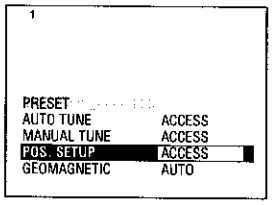
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".

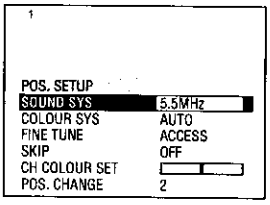


"POS. SETUP" condition.

2.

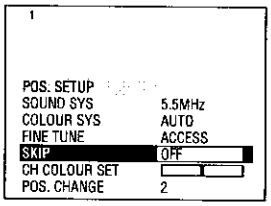
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



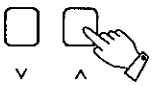


3.

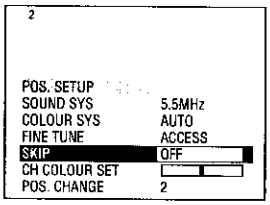
Press the "PRE." (PRESET) button 3 times, setting to "SKIP".

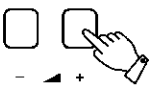


Channel Skip condition.

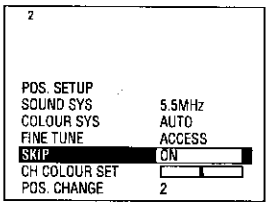
4. 

Select a Programme Number you want to skip by pressing the Programme Number Up "∧" or Down "∨" button.



5. 

Press the Volume Up "+" or Down "–" button.



The displayed "OFF" condition changes to "ON".

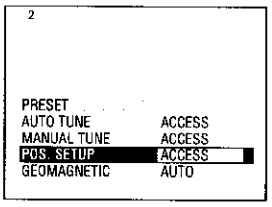
Tuning Procedure

6.

Repeat Steps 4 and 5 for the remaining Programme Numbers for which the Skip function is desired.

7.

After the Skip operation is completed, press the "PRE." (PRESET) button 3 times, setting it back to "POS. SETUP".



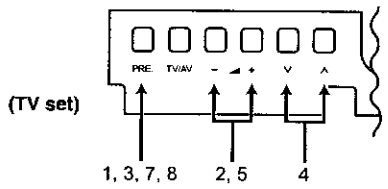
"POS. SETUP" condition.

8.

Press the "PRE." (PRESET) button twice.

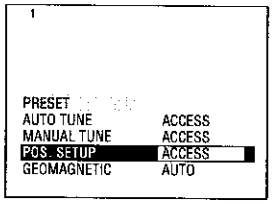
This returns the set to the normal viewing condition.

How to Cancel the Skip Function

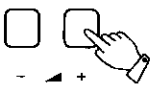


1.

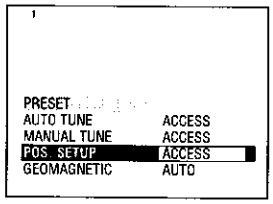
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".

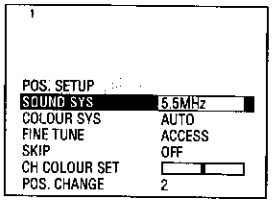


"POS. SETUP" condition.

2. 

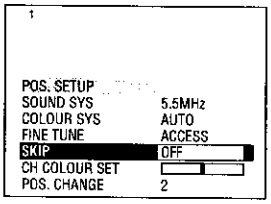
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



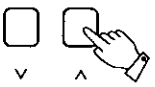


3.

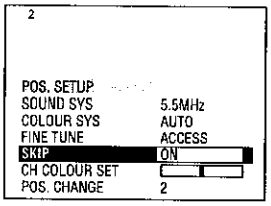
Press the "PRE." (PRESET) button 3 times, setting to "SKIP".

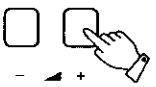


Channel Skip condition.

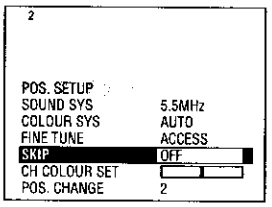
4. 

Select a skipped Programme Number, by pressing the Programme Number Up "∧" or Down "∨" button.



5. 

Press the Volume Up "+" or Down "–" button.



The displayed "ON" condition changes to "OFF".

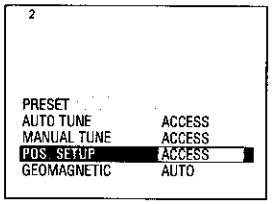
Tuning Procedure

6.

Repeat Steps 4 and 5, if you wish to cancel the Skip function on any other Programme Number.

7.

After the Skip cancel operation is completed, press the "PRE." (PRESET) button 3 times, setting it back to "POS. SETUP".



"POS. SETUP" condition.

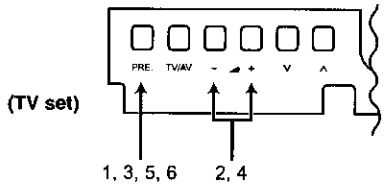
8.

Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

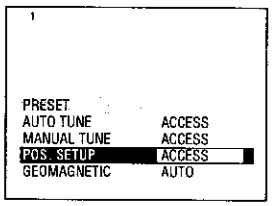
Tuning Procedure

CH Colour Set

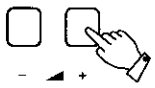


1.

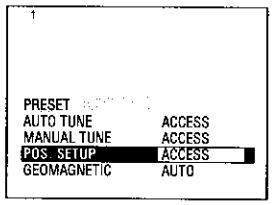
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".

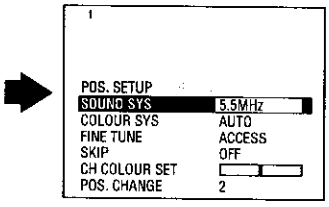


"POS. SETUP" condition.

2. 

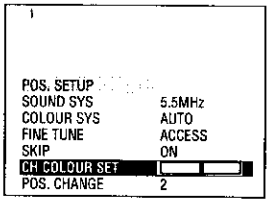
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



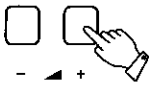


3.

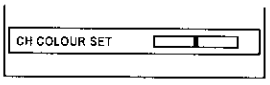
Press the "PRE." (PRESET) button 4 times, setting to "CH COLOUR SET".

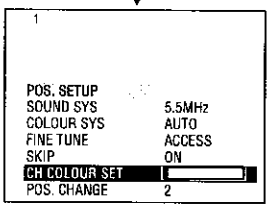


"CH COLOUR SET" condition.

4. 

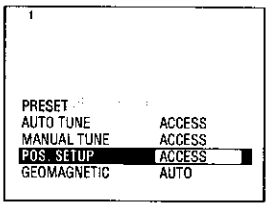
Colour density varying between broadcast channels can be adjusted to three levels of each reception channel by pressing the Volume Up "+" or Down "–" button.





5.

Press the "PRE." (PRESET) button twice, setting it back to "POS. SETUP".



"POS. SETUP" condition.

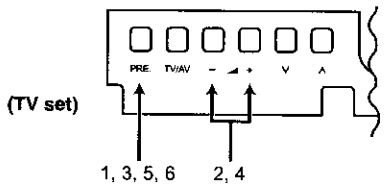
6.

Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Tuning Procedure

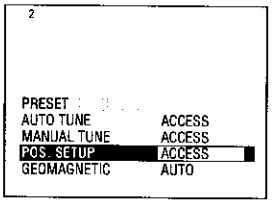
Colour System Selection



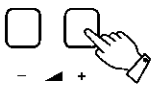
If a clear picture with current colours cannot be obtained when a broadcast or AV signal is received.

1.

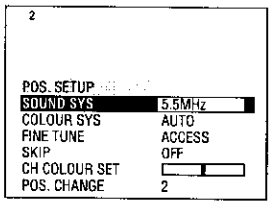
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP". (In AV mode, it is only necessary to press the "PRE." (PRESET) button once.)



"POS. SETUP" condition.

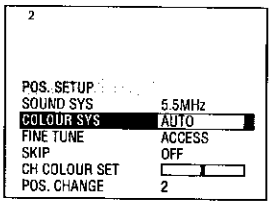
2. 

Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.

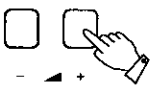


3.

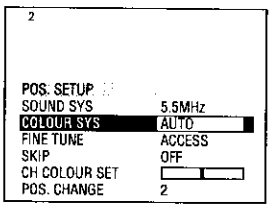
Press the "PRE." (PRESET) button once, setting to "COLOUR SYS".



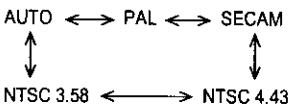
"COLOUR SYS" condition.

4. 

Press the Volume Up "+" or Down "–" button repeatedly until the optimum image is produced.



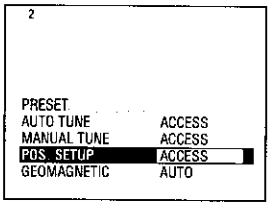
The Colour System will change as shown:



Tuning Procedure

5.

Press the "PRE." (PRESET) button 5 times, setting it back to "POS. SETUP".



6.

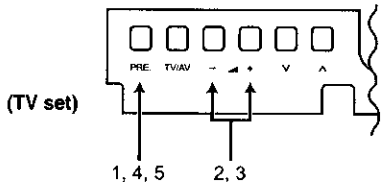
Press the "PRE." (PRESET) button twice.(In AV mode, press the "PRE." (PRESET) button 3 times.)

This returns the set to the normal viewing condition.

The selected Colour System is automatically memorised.

Tuning Procedure

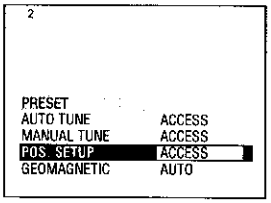
Sound System Selection



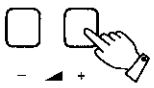
This function is used only in the TV mode, and is not applicable in AV Mode when the sound is not clear or no sound is produced on a Programme Number.

1.

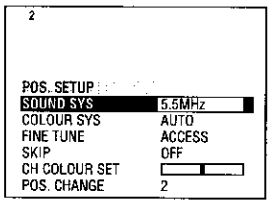
Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".



"POS. SETUP" condition.

2. 

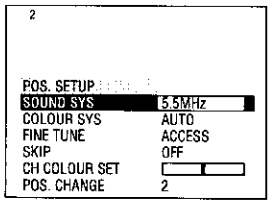
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



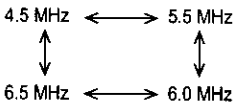
"SOUND SYS" condition.

3.

Press the Volume Up "+" or Down "–" button repeatedly until the optimum sound is obtained.

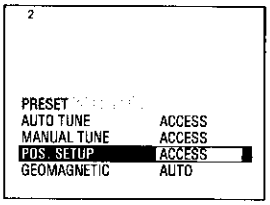


The Sound System will change as shown:



4.

Press the "PRE." (PRESET) button 6 times, setting to "POS. SETUP" in Preset Menu.



5.

Press the "PRE." (PRESET) button twice.

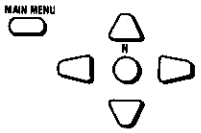
This returns the set to the normal viewing condition.

The selected Sound System is automatically memorised.

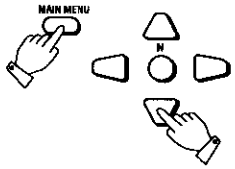
Pos. Change

This feature will enable the user to swap (Exchange) channel memory of 2 selected channels. The Position Change function allows one to shift from the present channel to any Programme Number without any tuning process.

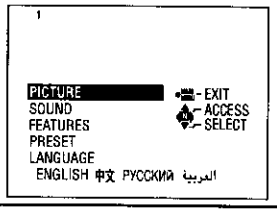
Operation from Remote Control

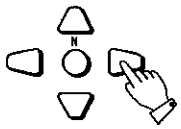


1. Press the Main Menu button.

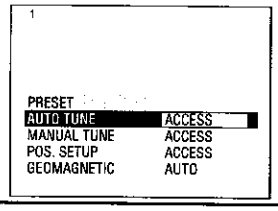
2. 

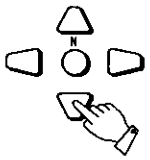
Select the "PRESET" menu by pressing the Position Up "∧" or Down "∨" button.



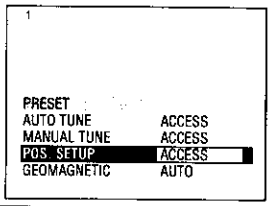
3. 

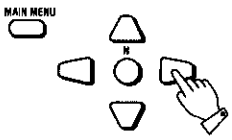
Access the "PRESET" menu by pressing the Position Left "<" or Right ">" button.



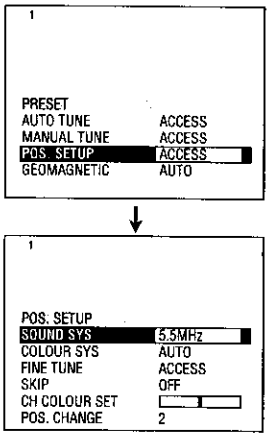
4. 

Press Position Up "∧" or Down "∨" button to select "POS. SETUP".



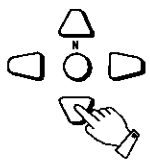
5. 

Press the Position Left "<" or Right ">" button setting to access "POS. SETUP" mode.

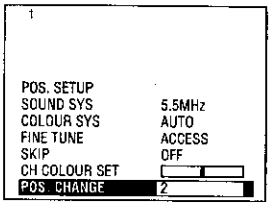


Tuning Procedure

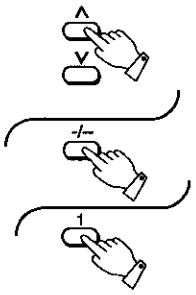
6.



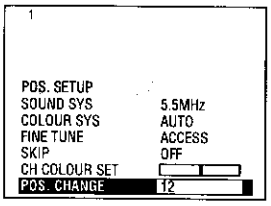
Press Position Up "∧" or Down "∨" button to select POS. CHANGE.



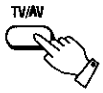
7.



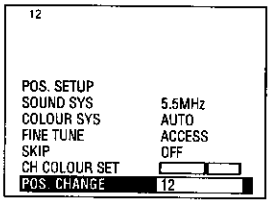
Select a Programme Number you want to change by pressing either Channel Up or Down button, two digit programme selection or Direct Programme Number selection on the Remote Control.



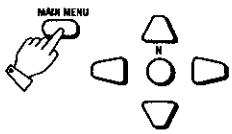
8.



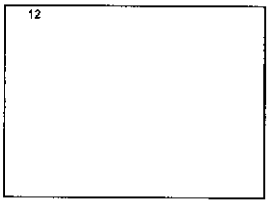
Press the "TV/AV" button to confirm.



9.



Press the "MAIN MENU" button three times.

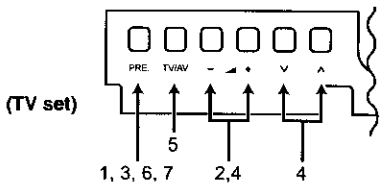


This returns the set to the normal viewing condition.

Pos. Change

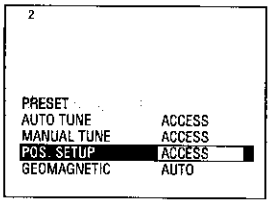
This feature will enable the user to swap (Exchange) channel memory of 2 selected channels. The Position Change function allows one to shift from the present channel to any Programme Number without any tuning process.

Operation from the TV



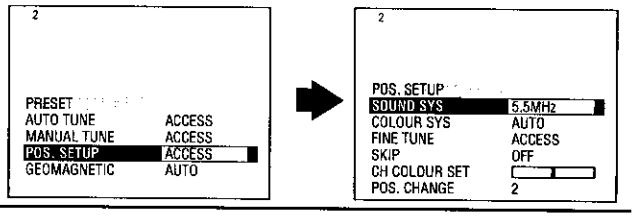
1.

Press the "PRE." (PRESET) button 3 times, setting the Preset Menu to "POS. SETUP".



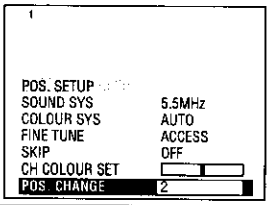
2.

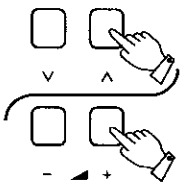
Press the Volume Up "+" or Down "–" button, to access "POS. SETUP" mode.



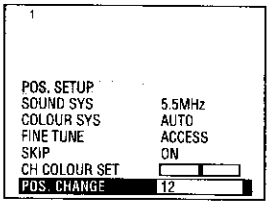
3.

Press the "PRE." (PRESET) button 5 times, setting to "POS. CHANGE".



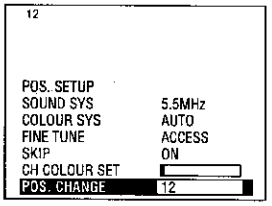
4. 

Select a Programme Number you want to change by pressing either Channel Up/Down button or Volume Up/Down button.



5.

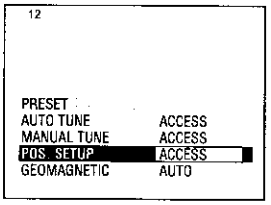
Press the "TV/AV" button to confirm.



Tuning Procedure

6.

After the "POS. CHANGE" operation is completed, press the "PRE." (PRESET) button once, setting it back to "POS. SETUP".



"POS. SETUP" condition.

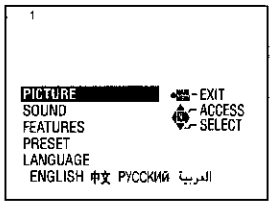
7.

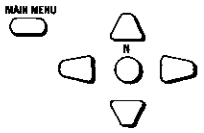
Press the "PRE." (PRESET) button twice.

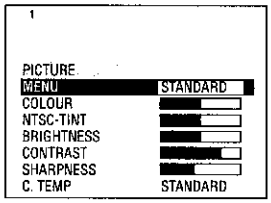
This returns the set to the normal viewing condition.

Main Menu Operation

Picture Menu Operation







1. Press the "Main Menu" button.
2. Select the "Picture" Menu by pressing the Position Up "∧" or Down "∨" button and access the "Picture" Menu by pressing the Position Left "<" or Right ">" button.
3. Choose the option and adjust by pressing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

Picture Menu	Function
DYNAMIC	For viewing in brighter environments. This menu selects a higher than normal levels of Brightness and Contrast.
STANDARD	For viewing in normal (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.
CINEMA	To realize the presence in a cinema environment when watching movies.

1. You can change the level of each Function (COLOUR, NTSC-TINT, BRIGHTNESS, CONTRAST, SHARPNESS, C.TEMP) for each Picture Menu.
2. Picture menu mode will be memorized for each TV, AV1, AV2, AV3 and AV4 mode.

Main Menu Operation

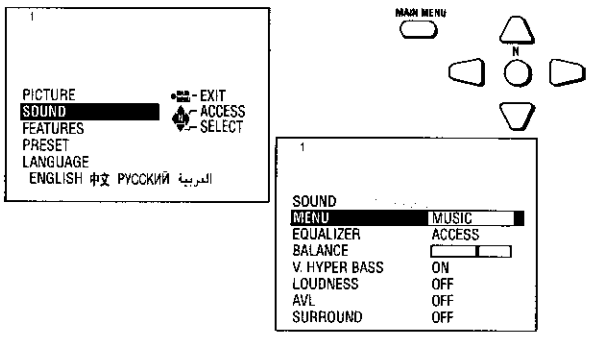
Item	Effect	Indicator
COLOUR	Less More	COLOUR 50
NTSC-TINT	Reddish Greenish	NTSC-TINT 50
BRIGHTNESS	Darker Brighter	BRIGHTNESS 50
CONTRAST	Less More	CONTRAST 70
SHARPNESS	Less More	SHARPNESS 40
C.TEMP	STANDARD ↔ COOL ↔ WARM	C.TEMP

Helpful Hint ([N] Normalisation)

By pressing the Normal "N" button on the Remote Control while the Picture Menu is displayed, the selected menu will be changed to the Normal Mode.
Normalisation will not occur if the menu is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition.
Returning to this original condition is called "Normalisation".

Main Menu Operation

Sound Menu Operation



1. Press the "Main Menu" button.
2. Select the "SOUND" Menu by pressing the Position Up "∧" or Down "∨" button and access the "SOUND" Menu by pressing the Position Left "<" or Right ">" button.
3. Choose the option by pressing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

On-screen	Function
MUSIC	Recreates the acoustics feel on a live concert. Adds excitement to music videos, soundtracks and provide powerful sound presence.
NEWS	Enable spoken voices to be heard more clearly. Perfect for news, documentaries and talk shows.
CINEMA	Recreates the cinematic sound effect from your TV. This setting provides clear and crisp dialogue.
SPORTS	The sound roars around from both sides of the TV, making you feel as you are watching the live game.
PERSONAL	Allows the setting of equalizer and balance to suit any personal taste with instant recall at any time.

Press	Item	Effect	Indicator
Select	EQUALIZER	MUSIC ↔ NEWS ↔ CINEMA ↔ PERSONAL ↔ SPORTS	EQUALIZER
Select	BALANCE	Left Sp. Right Sp.	BALANCE
Select	V. HYPER BASS	ON ↔ OFF	V. HYPER BASS
Select	LOUDNESS	ON ↔ OFF	LOUDNESS
Select	AVL	ON ↔ OFF	AVL
Select	SURROUND	SPATIAL ↔ OFF	SURROUND

V.HYPER BASS (VHB)

The Virtual Hyper Bass (VHB) create and reproduce lower and heavy bass sound by boosting up the low frequency. With VHB listener now can listen to the low and heavy bass which previously cannot. The V. HYPER BASS mode will change as shown:

ON ↔ OFF

AVL (Auto Volume Limiter)

The AVL function will limit the volume output for music, news, cinema, sports and personal at preset level when it is on.

Helpful Hint (N Normalisation)

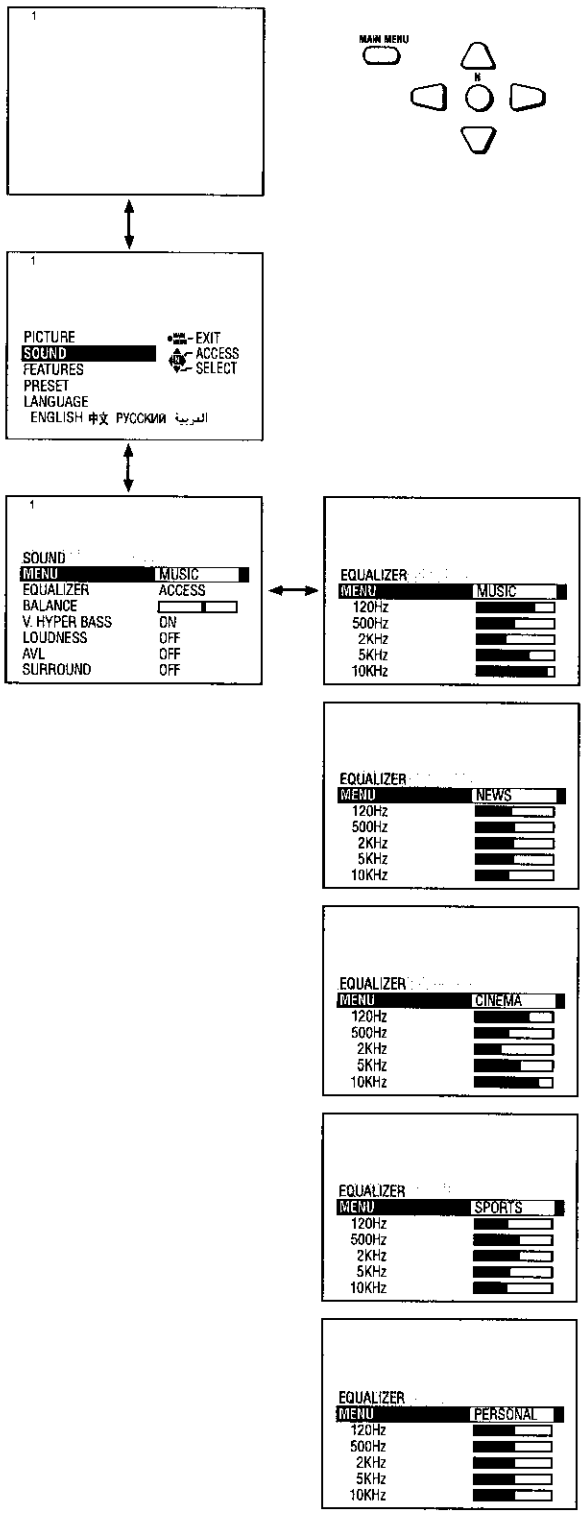
By pressing the Normal "N" button on the Remote Control while the Sound Menu is displayed, the selected menu will be changed to the Normal Mode.

Normalisation will not occur if the menu is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition.

Returning to this original condition is called "Normalisation".

Main Menu Operation

Equalizer Mode



1. Press the "Main Menu" button.

2. Select the "Sound" Menu by pressing the Position Up "∧" or Down "∨" button and access the "Sound" Mode by pressing the Position Left "<" or Right ">" button.

3. Press the Position Up "∧" or Down "∨" button to select Equalizer Mode.

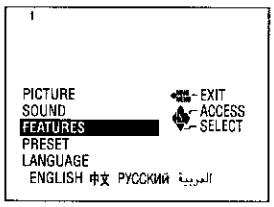
4. Choose the Equalizer functions by pressing the Position Left "<" or Right ">" button.

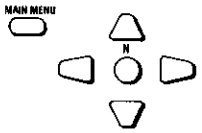
5. Press the position Left "<" or Right ">" buttons to select Equalizer Menu.

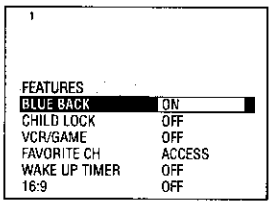
6. You can change the level of each frequency level by pressing the Position Left "<" or Right ">" button.

Main Menu Operation

Features Menu Operation



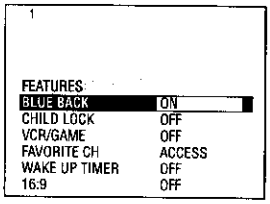


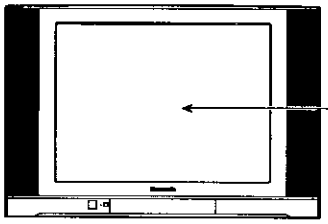


1. Press the "Main Menu" button.
2. Select the "FEATURES" Menu by pressing the Position Up "∧" or Down "∨" button and access the "FEATURES" Menu by pressing the Position Left "<" or Right ">" button.
3. Choose the option by pressing the Position Up "∧" or Down "∨" button, and by setting with the Position Left "<" or Right ">" button.

BLUE BACK Mode

When no picture signal is received, or the signal is weak, the screen reverts to a blue background colour and the sound is muted.
Disable this features to continue watching very weak signals.





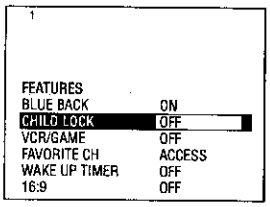
Blue background colour if no input picture signal or input signal is weak.

Note:
If "BLUE BACK" Mode is set on while a VCR signal is being viewed, selecting CUE or REVIEW may cause the screen to revert to blue background colour. Disable this feature to view correctly.

CHILD LOCK Mode

To child lock any channel, press the Position Left "<" or Right ">" button.

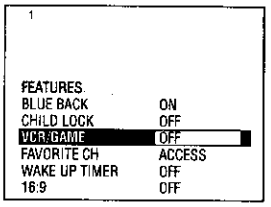
1) When channel is "LOCK", sound is muted and screen becomes blue colour.
2) If any of the channels is Child Locked, the "PRE." (PRESET) button on the front panel will not function. If the "PRE." (PRESET) button is pressed, the CHILD LOCK symbol will appear and blinking for a while.
3) Main power ON in child locked channel will display CHILD LOCK symbol on the screen to remind user that the Child Lock is ON and is in child locked channel.
4) Each channel has its own memory for channels to be child locked.



VCR/GAME Mode

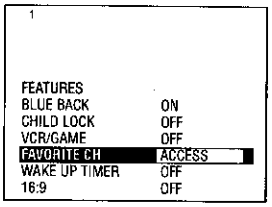
Reproduction of irregular signals, such as TV games and rental video tapes, may be improved.
The VCR/GAME mode will change as shown:

ON ↔ OFF



Main Menu Operation

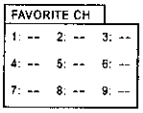
FAVORITE CH Mode



After Auto Search, this feature allows you to store up to 9 programmes in preferred channel positions without researching again.

How to use Favorite CH Mode

1) Press "Main Menu" button once, setting to "FEATURES" mode.
2) Press Position Left "<" or Right ">" button, setting to "FEATURES" mode.
3) Press Position Up "∧" or Down "∨" button, to select "FAVORITE CH" indication.
4) Press Position Left "<" or Right ">" button to access the 9 store "FAVORITE CH" as follows:



5) Key in the preffered channel number using direct Programme Number (0-9), position Up or Down on the Remote Control or channel Up and Down on the panel key.
6) After completed the preferred channels setting, press "Main Menu" button 3 times to return the set to the normal viewing condition.
7) To view FAVORITE CH, press FAVORITE button on the Remote Control.

To Cancel Setting

1) Press "Main Menu" button once, setting to FEATURES mode.
2) Press Position Left "<" or Right ">" button on the Remote Control, setting to FEATURES mode.
3) Press Position Up "∧" or Down "∨" button, to select "FAVORITE CH" indication.
4) Press Position Left "<" or Right ">" button to access the stored "FAVORITE CH".
5) Press Position Left "<" or Right ">" button and select the Programme Numbers that need to be cancelled.
6) Press "N" (Normal) button to cancel the setting.
7) Press "Main Menu" button 3 times to return the set to the normal viewing condition.

Note:

1) FAVORITE CH is not available in text mode.
2) All FAVORITE CH will be reset after Auto Tune.

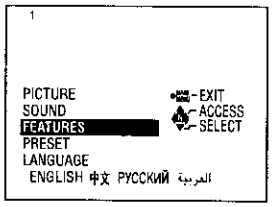
Main Menu Operation

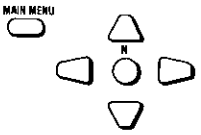
WAKE UP TIMER Mode

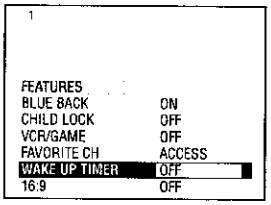
1) Press "Main Menu" button.
2) Select the "FEATURES" menu by pressing the Position Up "∧" or Down "∨" button.
3) Select the "FEATURES" menu by pressing the Position Left "<" or Right ">" button.
4) Select the WAKE UP TIMER by pressing the Position Up "∧" or Down "∨" button.
5) Press the Position Left "<" or Right ">" button to select the "WAKE UP TIMER". (Wake Up Timer will increase or decrease by 10 minutes when Position Left "<" or Right ">" button is pressed.)

Note:

For details, please refer to page 13.

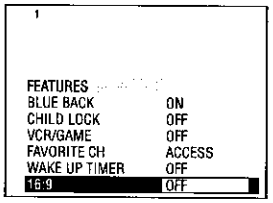






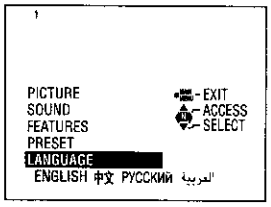
16:9 MODE

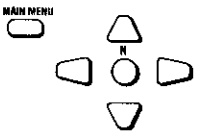
When the 16:9 mode is ON, the screen ratio becomes 16:9.



Language Menu Operation

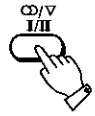
1. Press the "Main Menu" button.
2. Select the "LANGUAGE" Menu by pressing the Position Up "∧" or Down "∨" button.
3. Press the Position Left "<" or Right ">" button. The on-screen language display will change.



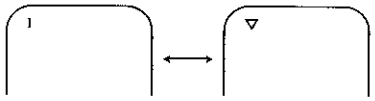
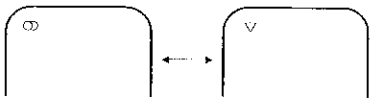
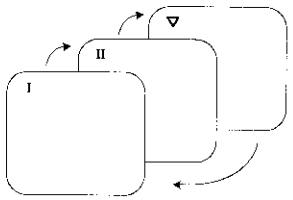
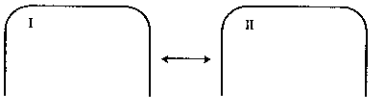
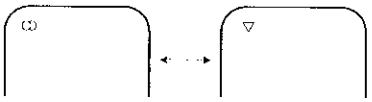


Advanced Remote Control Transmitter Operation

Stereo Reception



Stereo/Bilingual Sound Selection Button
Sound output modes can be selected by pressing the "Sound Selection" button.
STEREO, BILINGUAL (if transmitted) and MONO modes can be selected using this button.

	Types of Broadcast	On-screen Indication	Remarks
NICAM Digital Stereo	Regular Broadcast (Standard Audio)		Normal use
	Regular + NICAM MONO I [MAIN <I>]		You can select either the "MAIN <I>", "MONO" audio signal.
	NICAM STEREO		You select either the "STEREO" or "MONO" mode.
	NICAM DUAL MONO MAIN <I> / SUB <II>		You can select either the "MAIN <I>", "SUB <II>" or "MONO".
A2 (German) Stereo	Regular Broadcast (Standard Audio)		Normal use
	BILINGUAL or DUAL MONO MAIN <I> / SUB <II>		You can select either the "MAIN <I>" or "SUB <II>" audio signal.
	STEREO		You select either the "STEREO" or "MONO" mode.

Teletext Operation

- Teletext features may vary depending on the Broadcasting Companies and is only available if the channel selected is transmitting Teletext.
- When in teletext mode, the volume may still be altered to the desired listening level.

What is LIST mode?

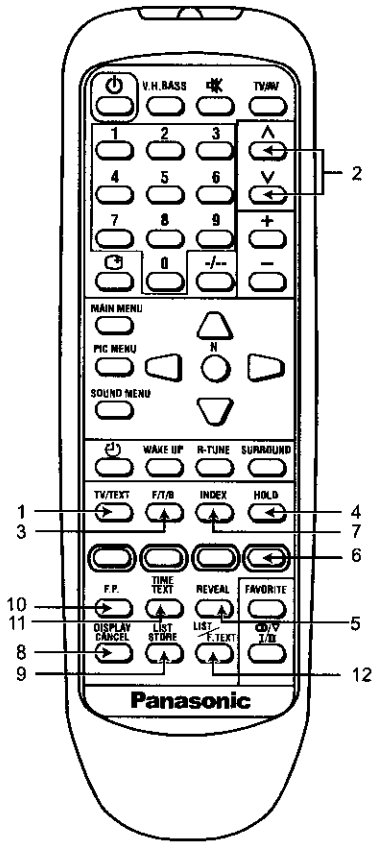
In LIST mode, four different coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory.

What is FASTEXT?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the display. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information of the subjects shown.

What is the advantages?

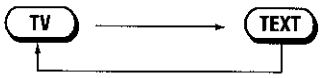
- Page selection at the touch of a Colour-coded button.
- Easy to use step-by-step selection of the topics subject.
- Reduction of waiting time.
- Page status line at bottom of screen so you always know which button will take you to the desired information.

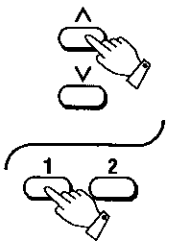


1.

TV/Teletext mode

By pressing the TV/TEXT button, to change the TV/ Teletext mode as follows:



2. 

Page Selection

Page can be selected in two ways:

a) Press the Up/Down buttons to increase or decrease the page number by one.

b) By entering the page number, using 0 ~ 9 on the Remote Control.

3.

Full/Top/Bottom

Press to expand the Top of the page.
Press again to expand the Bottom half.
Press again to return to normal (Full) size.

4.

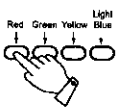
Hold

Press to hold the current page.
Press again to cancel the hold.

5.

Reveal

Press to reveal hidden words.
e.g. quiz page answer.
Press again to hide.

6. 

Colour-coded buttons

In Fastext mode these correspond to the differently coloured subjects.

7.

Index

Press INDEX to return to the main index page.

8.

Display Cancel
Press the "DISPLAY CANCEL" button to view the normal TV programme. When the desired sub-page is received, the "TEXT" message appears at the top left of the screen.

9.

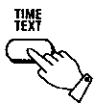
List Store
In LIST mode, the four page numbers can be altered for channel position. To do this, press one of the Colour-coded buttons and enter the new page number. Press and hold List Store, the page number will change colour.

10.

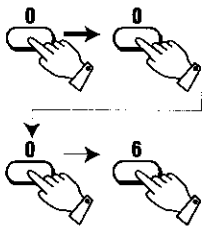
Favourite Page (F.P.)
Stores a Favourite Page in memory for instant recall. To store such a page, the TV must be in LIST mode, press the Light Blue button, select the page number, then press List Store. The page number is now stored. Press F.P. button to recall this page.

Sub Coded Page Access

The TEXT Menu will be displayed in TEXT mode. When teletext information exceeds more than one page, it may take some time for the automatic changing of the sub pages to reach the sub page you require. It is possible to enter your required sub page and continue watching the normal programme until the correct sub page is found. Select the required page number using buttons 0~9.

11. 

Press the TIME TEXT button.



Enter desired sub page number.
To select page 6 enter 0, 0, 0 and 6.

Press the DISPLAY CANCEL button to view a normal TV programme.

When the page is available, press the TV/TEXT button twice to view the sub page.

12.

List /F.Text
Press to change from FASTEXT mode to LIST mode and vice versa. In FASTEXT mode four differently coloured subjects are displayed at the bottom of the page. Press the appropriate coloured button to access more information about one of these subjects.

Troubleshooting

Before calling for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	**Sound**	
Snowy Picture	Noisy Sound	Aerial location, direction connection
Multiple Image	Normal Sound	Aerial location, direction connection
Interference	Noisy Sound	Electrical appliances Cars / Motorcycles Fluorescent lamps
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the Remote Control.)
No Picture	No Sound	Not plugged into AC outlet Not switched on Contrast and Brightness / Volume Setting (Check by pressing the Power Switch or Stand-by Button on the Remote Control.)
No Colour	Normal Sound	Colour control
Scrambled	Weak Sound	Re-tune channels
Colour Patches	Normal Sound	Magnetic interference from unshielded equipment. Receiver moved while "ON"
No Colour	Noisy Sound	Sound System Colour System

Specifications

Power Source : AC SINGLE 230V–240V, 50Hz
Power Consumption : 148 W
Receiving System : 17 SYSTEMS

	SYSTEMS	FUNCTION
1. 2. 3. 4. 5. 6. 7.	PAL B,G,H PAL I PAL D,K SECAM B,G SECAM D, K SECAM K1 NTSC M (NTSC 3.58 / 4.5MHz)	Reception of broadcast transmissions and playback from video cassette tape recorders.
8. 9. 10. 11. 12. 13. 14.	NTSC 4.43 / 5.5MHz NTSC 4.43 / 6.0MHz NTSC 4.43 / 6.5MHz NTSC 3.58 / 5.5MHz NTSC 3.58 / 6.0MHz NTSC 3.58 / 6.5MHz SECAM I	Playback from special VCR only.
15. 16. 17.	PAL 60Hz / 5.5MHz PAL 60Hz / 6.0MHz PAL 60Hz / 6.5MHz	Playback from special Disc player and VCR only.

Receiving Channels :

VHF BAND		UHF BAND		CATV
2 – 12	PAL / SECAM B,K1	21 – 69	PAL G,H,I / SECAM G,K,K1	S1 – S20 (OSCAR)
0 – 12	PAL B (AUST.)	28 – 69	PAL B (AUST.)	1 – 125 (USA CATV)
1 – 9	PAL B (N.Z.)	13 – 57	PAL D,K	C13 – C49 (JAPAN)
1 – 12	PAL / SECAM D	13 – 62	NTSC M (JAPAN)	S21 - S41 (HYPER)
1 – 12	NTSC M (JAPAN)	14 – 69	NTSC M (U.S.A.)	Z1 - Z37 (CHINA)
2 – 13	NTSC M (U.S.A.)			5A, 9A (AUST.)

Tuning System : Frequency synthesizer Auto search tuning: 100 position.
Picture Tube : 68 cm, measured diagonally, 104° deflection.
Audio Output : 10 W × 2 (Speaker)
Aerial Impedance : 75 Ω Unbalanced coaxial.

Video/audio terminal:	AV 1, 2	S-Video In	Y:1 Vp-p, 75 Ω C:0.3 Vp-p, 75 Ω
	DVD	Y	1.0 Vp-p, 75 Ω
		P_B	0.7 Vp-p, 75 Ω
		P_R	0.7 Vp-p, 75 Ω
	AV 1, 2, 3	Video In	1 Vp-p, 75 Ω
		Audio In	Approx. 0.5 V, 47 kΩ
	Monitor Out	Video Out	1 Vp-p, 75 Ω
		Audio Out	Approx. 0.5 V, 1 kΩ

Remote Control Transmitter : EUR646932
Battery : R6 (AA) × 2
Dimension (W × D × H) : 820 × 495.9 × 563.7 mm
Weight (Net) : 48 kg

Note:
Design and Specifications are subject to change without notice.

Customer's Record

The model number and serial number of this product can be found on its cover. You should note this serial number in the space provided below and retain this book plus your purchase receipt as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number _____ Serial Number _____

Matsushita Electric Industrial Co., Ltd
Central P.O. Box 288, Osaka 530-8692, Japan